

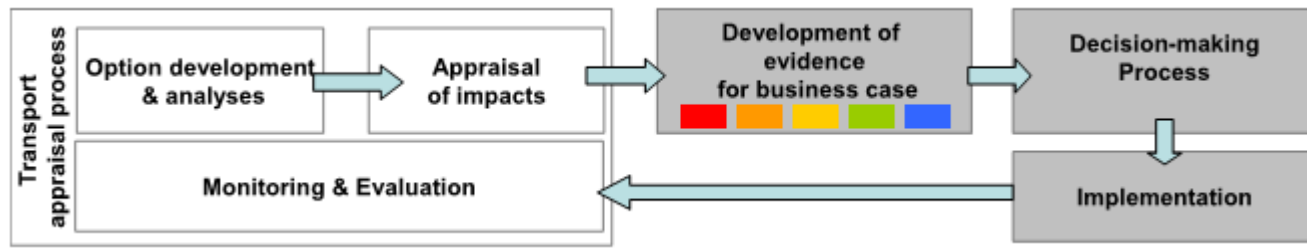
# URBAN MOBILITY WORKSHOP

**Bucharest**  
**5<sup>th</sup> June 2014**

**WORKSHOP 2**  
*Analysis Techniques*

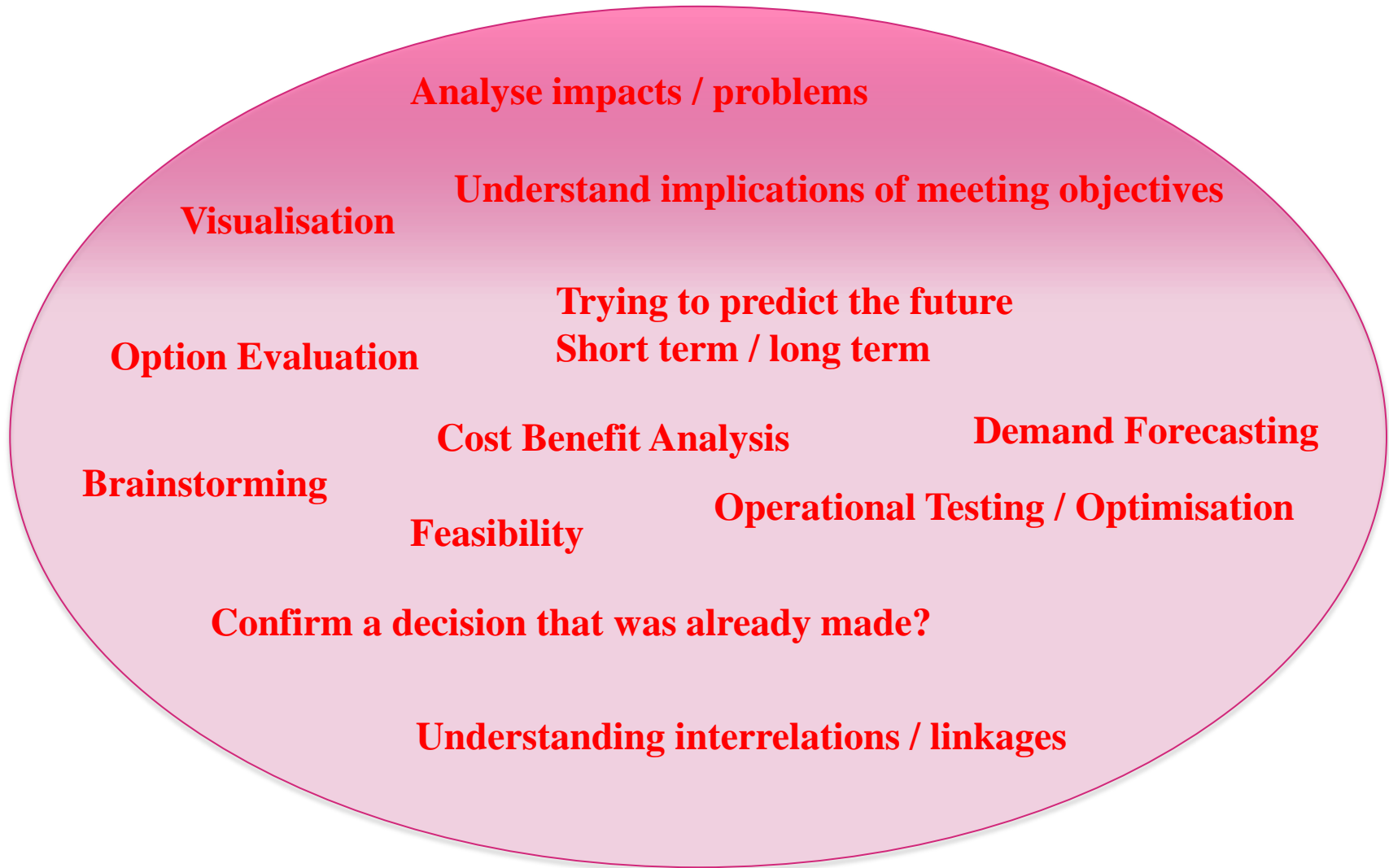
# 1. What is a Transport Model

- An analytical tool that can be used as part of a typical transport plan development process



- Used at all stages of the transport plan process
- Assist in making the correct decisions.

## 2. Why do we build transport models?



### 3. What are the key inputs & outputs



#### Inputs

- Demand / Trips
- Networks
- Services
- Fares
- Timetables
- Traffic Management

#### Analysis Tool



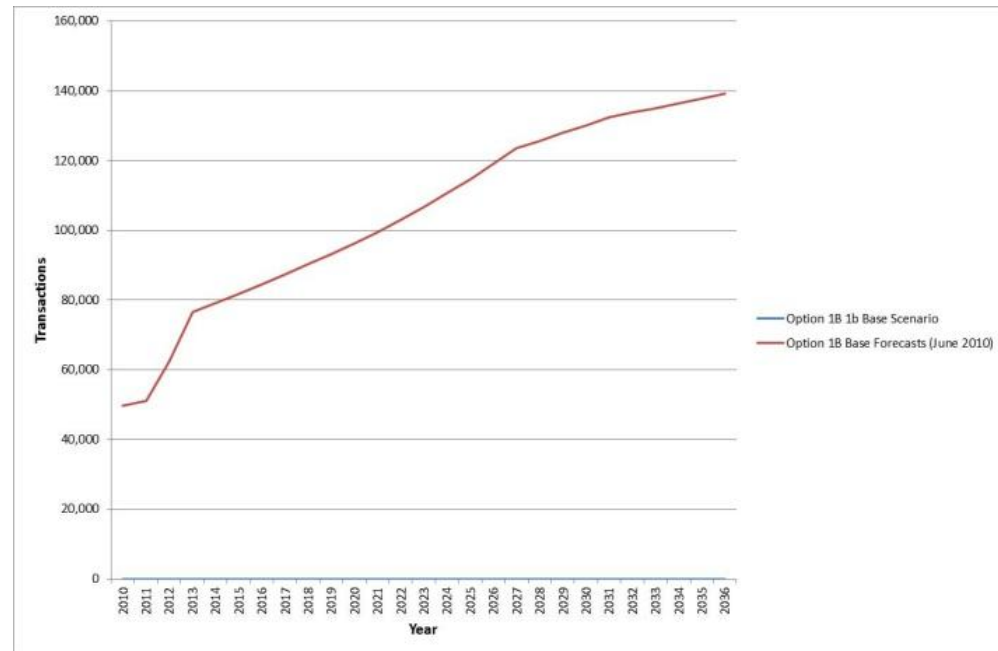
#### Outputs

- Flows on transport network
- Journey Times
- Delays
- Accidents
- Revenue
- Environmental Statistics.
- Distances travelled

# 4. Example Applications

- Economic analysis
- High level demand forecasting
- Financial analysis

## Empirical Analysis

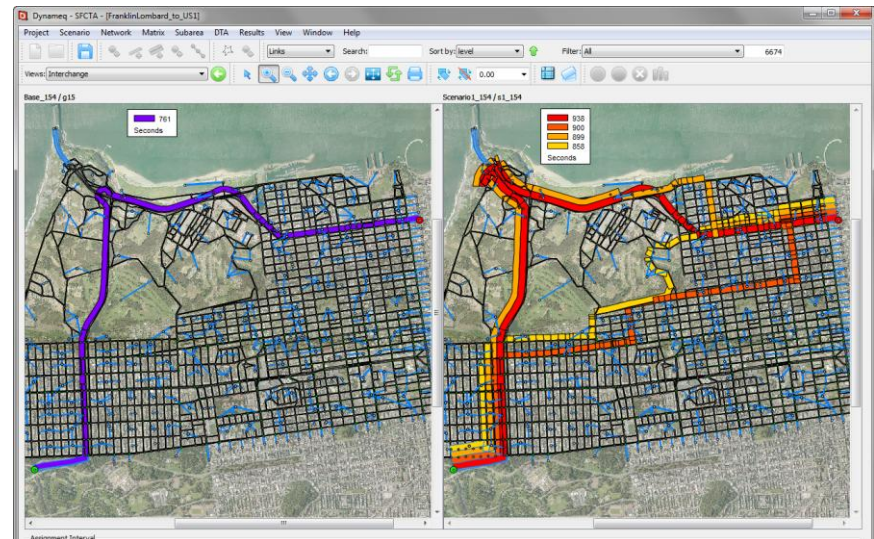


# 4. Examples Applications



City wide models

- Demand forecasting across modes
- Impacts of new transport schemes / new roads
- Assessment of policy – congestion charging, parking strategy, e-ticketing.



# 4. Examples of Applications

## Network interaction models



- Evaluation of ITS schemes,
- Public transport prioritisation
- Traffic management plans
- emergency evacuation plans,
- special events arrivals/departures.



# 4. Examples of Applications

## Microsimulation models



- Junction design – signal strategy testing and junction layout
- Private and public transport interaction
- Vehicle interaction analysis
- Urban realm / pedestrian facilities shared space assessments.



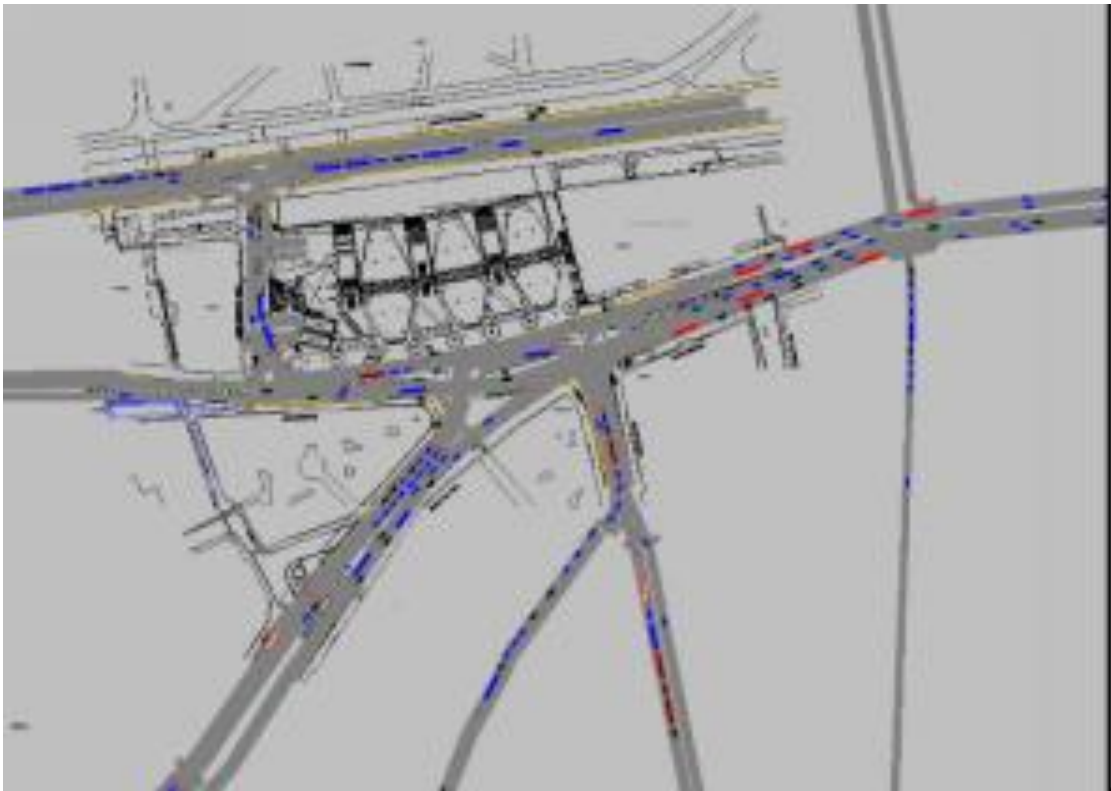
## 4. Examples of Applications

Microsimulation models

- Microsim video

# 4. Examples of Applications

## Operational Models



- Bus service planning
- New fleet analysis
- Terminal/station design
- Car park strategy

## 5. Informing decision making

- Provide quantified analysis to input to;
  - Analysis of problems
  - Assessment of objectives
  - Comparison of options and strategies – input to prioritisation
  - Inputs to consultation to allow more effective interaction with stakeholders
  - Provide a transparent evidence base for the decision makers to make their choices.

## 6. Model development proportionality

- Need to consider the following in model selection;
  - Problems and objectives
  - Type of scheme/strategy being assessed
  - Stage in scheme development
  - Data availability
  - Model sensitivity
  - Available resource, skill and timeframe.

# Workshop / Discussion

- Looking at the problems identified in Module 1 what types of impacts are these likely to have?
- How might these impacts be assessed, what type of analysis could be undertaken, taking into consideration?
  - The types of modelling approaches we've looked at
  - Scale of issue and objectives
  - Timeframes and data available
  - What do we need in order to inform the decision makers